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MEMORANDUM

DATE: November 8, 1979
TO: Sallie Anne Smith
FROM: Mary Wang
SUBJECT: Predevelopmental Inspection
Cook County
McCook/Motor Oils Refining Company

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On September 26, 1979, a predevelopmental inspection was made of the Motor Oils Refining Company in McCook, Illinois. Hereafter Motor Oils Refining Company will be referred to as MORCO. Mr. Ken Fredette, Plant Administrator, accompanied me during the inspection.

The MORCO facility has been in operation since October of 1940. The facility is located in an area zoned industrial. The northedge of the site is bordered by 47th Street. A bowling alley is located across 47th Street north of the site. A forest preserve borders the east edge of the property. The Metropolitan Sanitary District of Greater Chicago has a demolition and dried sludge site south of MORCO according to Fredette. A railroad line passes between the MORCO site and the MSDGC property. A paint company neighbors MORCO on the west. The MORCO land is leased from Commonwealth Edison and Illinois Central Gulf Railroad.

There are two separate unloading and storage areas. One area is for oils containing no water. The other is for oils containing water. The piping is heated with steam to keep the material free-flowing. The majority of oil is transferred to and from the site by railroad. The unloading and storage tank areas are bordered by concrete berms approximately 2 feet high. About 10 feet beyond the edge of the site on the east and west there exist clay berms about 8 feet high according to Fredette. These berms have established stands of grass covering them. The Illinois Central Gulf Railroad line that passes south of MORCO provides a berm there, although, the integrity of a railroad berm serving as containment of liquids is questionable. As previously mentioned, 47th Street borders the site on the north. The level of the street is about 20 feet higher than that of the MORCO facility.

On March 5, 1979 a MSDGC canal southwest of MORCO ruptured. All facilities in the immediate area were flooded. Mr. Fredette indicated that water and runoff from surrounding companies drained to the MORCO

site. The property that MORCO occupies is in elevation in the vicinity. All water and runoff collected on the MORCO site was processed through their oil-water separator, air filtration, system and the precipitation system using polymers and aluminum sulfate. After the water had been cleansed and a pH between 7 and 8 had been obtained, the water was discharged to the MSDGC system. Mr. Fredette said that MSDGC personnel sample the water discharge weekly.

After the rupture in the MSDGC canal, MORCO was under 4 feet of water. All the equipment had to be replaced or overhauled. The entire quantity of water and runoff that collected on MORCO property was processed. This situation had been dealt with and business back to normal by the first week in June. When the mishap occurred, 4 of 9 foremen resigned. This indicates a certain capacity to deal with emergency situations.

MORCO rerefines 30 million gallons of waste oils per year. The products generated by the rerefining of waste oils include fuel, lube oils, road oils, and asphalt. Approximately 50% of MORCO's waste oils come from railroad diesel oil drainings. The vast majority of this is done on a closed customer circuit; that is the waste oils are obtained from, rerefined and delivered to the same companies that provided the waste oils. The other 50% of waste oils are industrial oil drainings and automotive oil drainings.

The sludge generated by the filtration process is hauled by Chemical Waste Management, a licensed special waste hauler. The sludge is landfilled at CID in Calumet City. The sludge is generated at a rate of about 5,000 gallons per month.

Potable water in the vicinity is obtained from public water distribution systems. There are no known wells in the immediate area. Information obtained from U.S.G.S. Geologic and Topographic Map indicates an alluvium deposit beneath the MORCO facility. The material is predominately silty clay alluvium with seams of sand or gravel dispersed throughout. In view of the fact that the unloading and storage areas of the site are bermed with concrete and the perimeter of the site is also bermed the geological conditions at the site are significant. In the event of a spill the material may be contained within the berms until pumped into tanks, however, the permeability of the soil may not be conducive to the containment of liquid for any period of time. Tests would be needed to fully determine this.

The MORCO facility is located so as not to contribute significantly to scenic blight. There are no known archaeological or historic sites in the immediate area.

The facility is located so as not to significantly contribute any hazards to public health and safety. The fact that the majority of the oils are transferred by railroad minimizes diesel truck traffic in the area.

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The area of McCook that MORCO is located in is comprised of some industry, some commercial facilities, a park, and residences. This is an area of varying degrees of industrial development. The MORCO facility did not appear to cause depreciation of nearby property. The MORCO facility appeared to be adequately compatible with the surrounding area.

The chemical engineer on site said he had initiated a program where monthly meetings were held to educate the MORCO personnel on safety and emergency procedures. The laboratory was well equipped. The oils are sampled before and after being processed.

The retention capabilities of the geologic material beneath the site is the area recommended for extensive review by the Permit Section. The information provided on the application appeared to be accurate.

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